

Amendments to the Specification:

Please replace the paragraphs from page 25, lines 15-33 with the following replacement paragraphs:

An inlet port (not shown) and a first connection channel ~~1021~~1021a are formed in the first substrate 1001, where the first connection channel ~~1021~~1021a is in fluid communication with the inlet port (not shown) and the chamber 1006 for allowing a stream of substance to be delivered to the chamber 1006.

Additionally, an outlet port (not shown) and a second connection channel ~~1005~~1005a are formed in the first substrate 1001, where the second connection channel ~~1005~~1005a is in fluid communication with the outlet port (not shown) and the chamber 1006 for allowing a stream of substance to be removed from the chamber 1006.

The bioreactor 1000 further has confining means positioned in the chamber 1006 to form a confinement region 1006a to confine the cells 1008 therein. In one embodiment, the confining means includes a first filter 1085a and a second filter 1085b, where the first filter 1085a is positioned proximate to the first connection channel 1021 and the second filter 1085b is positioned proximate to the second connection channel ~~1005~~1005a, and the first filter 1085a and the second filter 1085b are substantially parallel to each other. Each of the first filter 1085a and the second filter 1085b includes a plurality of posts 1086 spaced apart from each other not to allow cells to pass through it. The distances between two neighboring posts can vary. For examples, posts 1086, 1086a, 1088 and 1089, as shown in Figs. 2C, 2D, 2E and 2F, show them with different gaps, respectively.